Testimony of DONALD R. VEREEN, JR., M.D., M.P.H. Deputy Director, Office of National Drug Control Policy Before the

US Senate Caucus on International Narcotics Control "America at Risk: The Ecstasy Threat" Wednesday, March 21, 2001

Introduction

Chairman Grassley, Senator Biden, distinguished members of the Caucus, I would like to thank the Caucus on International Narcotics Control for the opportunity to testify today about "Ecstasy," one of the most problematic drugs that has emerged in recent years. This is the second time in the past year that the Caucus has asked me to present the Administration's concerns about this drug. Since the hearing I participated in last July, Congress enacted into law (October 17, 2000), the Ecstasy Anti-Proliferation Act of 2000 (Public Law 106-310 section 3661). I would like to thank Senator Bob Graham of Florida, the principal sponsor of this Act, and the co-sponsors including, Senator Grassley, Senator Biden, Senator DeWine, Senator Thomas, Senator Bayh, Senator Mack, Senator Thurmond, and Senator Torricelli for their leadership in raising the public profile of the substance-abuse challenge posed by the increasing availability of Ecstasy, ¹ and the accompanying surge in its use.

MDMA is not a benign substance

MDMA has generated much attention in recent months. Unfortunately, some articles have suggested that the drug is relatively safe. I think it is instructive to heed the caution sounded by Dr. Alan Leshner, Director of the National Institute on Drug Abuse in a recent interview in the *Journal of the American Medical Association*:

Doctors need to "...understand that it's not a benign substance at all. It's not harmless. It's an incredibly potent stimulant; that's why people love it. It's both a stimulant and a hallucinogen. It causes tremendous increases in blood pressure, heart rate, et cetera. It has a dramatic hyperthermic effect; it increases body temperature tremendously. So it's dangerous in raves [extravagantly energetic dance parties] and situations like that. And it's been shown from a decade of animal research, which is now being confirmed in humans, that MDMA is toxic to serotonin-containing neurons.

What physicians need to know is that it's dangerous, and that when people come in [with questions about using it], it has to be taken seriously. More and more people are losing control over their ecstasy use. Whether it's truly addicting or not, we don't

¹ For clarity I will refer in this testimony to the drug as "MDMA", which stands for its chemical structure 3-4 methylenedioxymethamphetamine.

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know. But the fact that they are coming to treatment programs saying, "I can't get control over this" means it has to be taken seriously."²

Health risks associated with MDMA include severe dehydration and death from heat stroke or heart failure. A review of several studies by the National Institute on Drug Abuse (NIDA) concludes that heavy MDMA users have significant impairments in visual and verbal memory compared to non-users. Further findings by Johns Hopkins University and the National Institute of Mental Health (NIMH) suggest that MDMA use may lead to impairment in other cognitive functions, such as the ability to reason verbally or sustain attention. MDMA's effects last approximately 3 to 6 hours (although it can last up to 24 hours). The drug's effects vary with the individual taking it, the dose and purity, and the environment in which it is taken. Physical effects may include muscle tension, involuntary teeth clenching, nausea, blurred vision, rapid eye movement, faintness, and chills or sweating. Users may experience increases in heart rate and blood pressure, a special risk for people with circulatory or heart disease. The stimulant effects of MDMA may also lead to dehydration, hypertension, and heart or kidney failure. MDMA also induces a state characterized as "excessive talking" (loquacity). Side effects including anorexia, psychomotor agitation, difficulty in achieving orgasm, and profound feelings of empathy, can all be explained as results of the flooding of the serotonin system.

The prevalence of MDMA use is increasing, particularly among youth.

Today ONDCP is releasing its latest *Pulse Check: Trends in Drug Abuse Mid-Year 2000*. The special topic of this report is MDMA and other club drugs. The report chronicles changes in drug use between 1999 and 2000. Now club drugs are being used by diverse populations and appear to have spread to African-American and Hispanic youth. **Use is no longer confined to the rave scene**: the sale and use of club drugs has expanded from nightclubs and raves to high schools, the streets, neighborhoods, and open venues. The drug continues to be actively sought out by users; however they may be purchasing adulterated tablets or another substance marketed as MDMA such as methamphetamine. Eighty percent of *Pulse Check* sources report increased availability of club drugs, with MDMA and ketamine as the most widely cited types. Homemade MDMA is reported for the first time in Los Angeles, California.

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² Journal of the American Medical Association (US), Vol. 285, No. 9, Website: http://jama.ama-assn.org/

³ National Institute on Drug Abuse <u>www.nida.nih.gov</u>

⁴ See Hatzidimitriou, G., McCann, U.D., and Ricaurte, G.A. "Altered Serotonin Innervation Patterns in the Forebrain of Monkeys Treated with (±)3,4-Methylenedioxymethamphetamine Seven Years Previously: Factors Influencing Abnormal Recovery," *The Journal of Neuroscience*, June 15, 1999, 19(12):5096-5107 and McCann, U.D., Eligulashivili, V., Ricuarte, G.A., "Cognitive Performance in (+/-) 3,4 Methylenedioxymethamphetamine Users: A Controlled Study," *Psychopharmacology*, April 1999, 143(4):417-25.

⁵ Ibid.

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According to the 2000 *Monitoring the Future* Survey, MDMA use rose sharply in 2000 by American adolescents (see figure 1). ⁶ In the study, past-year use of MDMA by 8th graders increased from 1.7 percent to 3.1 percent between 1999 and 2000; past-month use increased from 0.8 percent to 1.4 percent. Past-month use of MDMA by 10th graders increased from 1.8 percent to 2.6 percent and past-year use by 12th graders increased from 5.6 percent to 8.2 percent. Among 12th graders, the perceived availability of MDMA rose sharply – an increase from 40.1 percent to 51.4 percent. This is the largest one-year percentage point increase in the availability measure among 12th graders for any drug class in the 26-year history of the MTF study.

The Partnership for a Drug-Free America's (PDFA) Attitude Tracking Survey (PATS 2000) reports that teen trial use of MDMA has doubled since 1995, and increased significantly over the last year (1999-2000). According to the survey, trial use of MDMA is now on par with teens' trial use of cocaine, crack, and LSD; more teens in the United States have now tried MDMA than heroin. Trial use of MDMA increased from five percent in 1995 to seven percent last year to ten percent this year. Nearly one-third (32 percent) of teens in 2000 reported they had close friends who used MDMA, up from 24 percent in 1998 and 26 percent in 1999.

Data suggest that greater availability of MDMA is contributing to its popularity and increased use. We note that federal law enforcement agencies report a surge in MDMA seizures between 1998 and 2000. While no complete federal accounting of MDMA seizures is available, the DEA reports increasing amounts of the drug have been seized in each of the past three years.

The public-health consequences of MDMA use are also increasing.

Emergency room mentions ⁸ of MDMA increased sharply between 1994 and 1999 (253 in 1994 to 2,850 in 1999). ⁹ More than seventy percent of emergency department episodes involving MDMA, GHB, Ketamine, LSD or Rohypnol involve more than one drug. ¹⁰ DAWN data also indicate that young people are disproportionately represented in emergency department visits involving these so-called "club drugs." Nevertheless, emergency room mentions of MDMA are rare, compared to those of cocaine (168,763 mentions in 1999), marijuana/hashish (87,150 mentions in 1999), and heroin/morphine (84, 409 mentions in 1999). While the number of deaths reportedly related to MDMA use remains small (41 deaths in 1999 based on the Drug Abuse Warning Network, Medical Examiner Data), we should not underestimate the publichealth threat posed by this substance. Our challenge is to learn more about the effects of this drug in order to educate all Americans. We cannot afford to ignore these warning signals about the dangers of MDMA use.

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⁶ Johnson, L.D., O'Malley, P.M., & Bachman, J.G., National survey results on drug use from the Monitoring the Furutre study, Volume I: Secondary school students, NIH Publication No. 99-4660, (Rockville, MD: National Institute on Drug Abuse), 2000

⁷ http://www.drugfreeamerica.org/research/pats20002.asp

A "drug mention" refers to a substance that was mentioned (as many as four) during a single drug-related episode.

⁹ SAMHSA, unpublished 1999 DAWN Emergency Department Data.

¹⁰ Office of Applied Studies, SAMHSA, The DAWN Report: Club Drugs, December 2000.

ONDCP's responses to the MDMA problem

ONDCP has convened a Federal Interagency Demand Reduction Working Group to address MDMA since I last appeared before this caucus. One product of this collaboration is the identification of gaps in the prevention and treatment field to adequately address MDMA. Drugtesting techniques for MDMA are lacking. The Center for Substance Abuse Prevention Workplace Program is collaborating with Federal and private industry groups to review options and identify the best drug technology to fill this gap.

In August 2000, the National Youth Anti-Drug Media Campaign launched a nationwide radio and Internet initiative focused specifically on MDMA. The initiative is designed to educate people about the drug's dangers and change the widespread misperceptions that it is harmless. This is in keeping with a research-based prevention principle that recommends intensifying anti-drug messages when a new drug threat emerges. A total of \$5 million in purchased messages was allocated to this effort. The campaign targets both youth and adults through a combination of national radio (\$3 million), spot (local) radio (\$1.5 million) and Internet activity (\$.5 million). Local radio activity includes 14 markets: Chicago, Denver, Miami, Atlanta, New Orleans, San Francisco, Austin, Seattle, Boston, Detroit, New York, St. Louis, Dallas, and Washington, D.C. In addition to the purchased messages, \$3.9 million in probono media-match messages are being targeted at parents.

The Media Campaign also has an entertainment industry outreach component. As part of this outreach, the Campaign convened *Ecstasy 101*, to provide scientific information and data to entertainment writers, network executives, and magazine feature writers. An MDMA Media Campaign roundtable was also held with invited directors, writers from television networks and news media that frequently cover the entertainment industry, medical experts, undercover narcotics officers, and selected youth drug use victims who told their own stories about their experience with Ecstasy. The roundtable was held in Los Angeles in September 2000 and repeated in New York in December 2000.

ONDCP's National High Intensity Drug Trafficking Area (HIDTA) Program Office is conducting an assessment of the nature and extent of MDMA abuse and trafficking throughout the 28 HIDTAs across America. The ONDCP HIDTA office distributed 250 videotapes that summarized a July 2000 DEA conference on Ecstasy to city, state, and local police chiefs. The videos have proven to be a valuable strategy development tool as well as a way of raising law enforcement awareness of this emerging drug. In addition, the National HIDTA Assistance Center launched a training program during its 2000 course-year that targets MDMA. A similar training course is scheduled for 17 HIDTAs during 2001.

In partnership with the National Guard Bureau, Center for Substance Abuse Prevention (CSAP), and Community Anti-Drug Coalitions of America (CADCA), ONDCP is participating in a four-part series of satellite broadcasts on specific drugs of abuse. The May 24, 2001 broadcast is tentatively scheduled to focus on MDMA. It is expected that this broadcast will reach nearly 600 sites in 48 states the District of Columbia and Canada. Over 43 public access stations with a potential household audience over 3 million viewers is anticipated. There is an estimated live audience of 4,500 and a video taped audience of over 25,000. In addition to

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marketing through CADCA, the Higher Education Center has agreed to advertise the broadcast through its listserve, which includes college campuses throughout the nation. From the broadcast, CSAP will produce a 20-minute video, a 30-minute Power Point presentation, and a Viewer's Guide. These materials will be available through the Health and Human Services' National Clearinghouse for Alcohol and Drug Information (NCADI, http://www.ncadi.samhsa.gov/)

NIDA'S Initiative to Combat Club Drugs

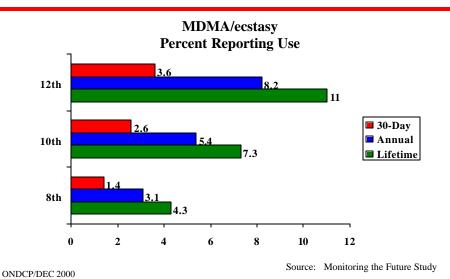
Another important federal initiative I would like to highlight is NIDA's Initiative to Combat Club Drugs. NIDA has increased funding for research on club drugs and joined four national organizations in a public education strategy to provide information regarding the dangers of club drugs such as MDMA. Organizations joining this effort are the American Academy of Child and Adolescent Psychiatry (AACAP), the Community Anti-Drug Coalitions of America (CADCA), Join Together, and National Families in Action (NFIA). As part of this effort, a Community Drug Alert Bulletin on Club Drugs has been mailed to almost one half million health care and treatment providers. "NIDA Infofax," which provides fact sheets on drugs of abuse English or Spanish, has distributed more than 250,000 fact sheets. "Go-cards," postcard-like advertisements, encouraging people to contact NIDA for research-based information have been circulated to places where young people congregate (e.g., lounges, dance clubs). All of these materials are available on a specially designed Web site – www.clubdrugs.org

Conclusion

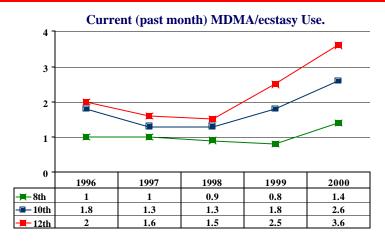
Mr. Chairman, I commend the Caucus on its efforts to protect the American people from this dangerous drug and thank you for the opportunity to speak about the facts. This is not a benign substance with a unidimensional framework. MDMA is toxic and in some instances lethal and must be addressed from a multidimensional perspective. We remain determined to reverse the threat posed by MDMA and other designer drugs to the public health of our country and especially the still-developing minds and bodies of our youth.

Figure 1

MDMA/ecstasy use is found in all grades.



MDMA/ecstasy use has increased notably among students in each grade.



ONDCP/DEC 2000

Source: Monitoring the Future Study